

CLAIMS

What Is Claimed Is:

1. In a mobile communication system having an information content delivery system for delivering information to users aboard a mobile platform, a terminal data loading device permanently installed on the mobile platform, said terminal data loading device comprising:

a media unit operatively connectable to a transportable media element containing media data, the media unit being capable of reading the media data from the media element and outputting a media signal;

a control processor unit for receiving the media signal from the media unit and outputting an information signal; and

a wireline communication unit for receiving the information signal and outputting a wireline signal to a network on the mobile platform.

2. The terminal data loading device of Claim 1,

wherein the wireline communication unit can receive a wireline signal from a network on a mobile platform and output an information signal,

wherein the control processor unit can receive an information signal from the wireline communication unit and output a media signal, and

wherein the media unit can receive a media signal from the control processor unit and write the media signal to a transportable media element, the media unit being operatively connectable to the transportable media element.

3. The terminal data loading device of Claim 1, further comprising:

a wireless communication unit for receiving an information signal from the control processor unit and sending a wireless signal to a receiving wireless communication

unit in a wireless network, the receiving wireless communication unit outputting an information signal to the control processor unit.

4. The terminal data loading device of Claim 1,

wherein the media element is a Digital Versatile Disk (DVD) and the media unit is a DVD drive.

5. The terminal data loading device of Claim 1,

wherein the media element is a Compact Disc (CD) and the media unit is a CD drive.

6. The terminal data loading device of Claim 1,

wherein the media element is a solid-state memory stick and the media unit is a memory stick interface for reading and writing the memory stick.

7. The terminal data loading device of Claim 1,

wherein the media element is a Advanced Intelligent Tape (AIT) and the media unit is an AIT drive.

8. The terminal data loading device of Claim 1,

wherein the media element can be safely used on the mobile platform without requiring a mobile platform precertification of the media element against harmful interactions with the mobile platform.

9. The terminal data loading device of Claim 1, further comprising:

a security processor unit for receiving an encrypted media signal and outputting an unencrypted media signal based on one or more predetermined cryptographic keys and utilizing a predetermined cryptographic algorithm, the security processor unit for

receiving an unencrypted media signal and outputting an encrypted media signal based on one or more predetermined cryptographic keys and utilizing a predetermined cryptographic algorithm; and

a physical key unit for receiving a physical key, the physical key unit and physical key for determining at least one cryptographic key,

wherein a predetermined portion of the media data on the media element is encrypted.

10. The terminal data loading device of Claim 9,

wherein the wireline communication unit can receive a wireline signal from a network on a mobile platform and output an information signal,

wherein the control processor unit can receive the information signal from the wireline communication unit and output an unencrypted media signal,

wherein the security processor unit can receive the unencrypted media signal and output an encrypted media signal, and

wherein the media unit can receive an encrypted media signal from the security processor unit and write the encrypted media signal to a transportable media element, the media unit being operatively connectable to the transportable media element.

11. The terminal data loading device of Claim 9,

wherein the predetermined cryptographic algorithm is a symmetric key algorithm.

12. The terminal data loading device of Claim 9,

wherein the predetermined cryptographic algorithm is an asymmetric key algorithm and the physical key unit determines at least one cryptographic key pair comprising a public and private key.

13. The terminal data loading device of Claim 11,
wherein the symmetric key algorithm is the digital encryption standard (DES),
the triple-DES (3DES) protocol, or the advanced encryption standard (AES).

14. A method of securely processing and transferring information content for use
with a terminal data loader device, comprising:

receiving unencrypted content;
creating delivery blocks and encrypting delivery blocks created from the
received content;
writing the delivery blocks to a transportable media;
delivering the transportable media to a mobile platform;
decrypting delivery blocks from the transportable media;
collecting delivery blocks decrypted from the transportable media; and
reassembling the delivery blocks into a unencrypted content file on the mobile
platform.

15. A machine-readable medium having one or more instructions for information
content delivery over a network on a mobile platform, which when executed by a processor,
causes the processor to perform operations comprising:

receiving an encrypted media signal from a media unit, the media unit being
capable of receiving a removable media element containing encrypted content and generating
an encrypted media signal;
decrypting the encrypted media signal into a decrypted media signal;
collecting the decrypted media signal into delivery blocks of a predetermined
size; and
sending the delivery blocks over the network on the mobile platform.

16. A method of on-loading content for use with a terminal data loader device on a mobile platform, comprising:

connecting a transportable media element to a media unit, the media element containing media data;

reading the transportable media element containing media data with the media unit to produce a media signal;

sending the media signal from the media unit to a control processor unit;

processing the media signal with the control processor unit to produce an information signal;

sending the information signal to a wireline communication unit;

translating the information signal with the wireline communication unit to produce a wireline signal; and

outputting the wireline signal with the wireline communication unit to a network on a mobile platform.

17. The method of on-loading content of Claim 16, further comprising:

sending the information signal to a wireless communication unit;

translating the information signal with the wireless communication unit to produce a wireless signal; and

outputting the wireless signal with the wireless communication unit to a wireless network.

18. A method of on-loading secure content for use with a terminal data loader device on a mobile platform, comprising:

connecting a transportable media element to a media unit, the media element containing encrypted media data;

reading the transportable media element containing encrypted media data with the media unit to produce an encrypted media signal;

sending the encrypted media signal from the media unit to a security processor unit;

decrypting the encrypted media signal with the security processor unit to produce an unencrypted media signal;

sending the unencrypted media signal from the security processor unit to a control processor unit;

processing the unencrypted media signal with the control processor unit to produce an information signal;

sending the information signal to a wireline communication unit;

translating the information signal with the wireline communication unit to produce a wireline signal; and

outputting the wireline signal with the wireline communication unit to a network on a mobile platform.

19. A method of off-loading content for use with a terminal data loader device on a mobile platform, comprising:

connecting a transportable media element to a media unit;

receiving a wireline signal with a wireline communication unit connected to a network on a mobile platform;

translating the wireline signal with the wireline communication unit to produce an information signal;

sending the information signal from the wireline communication unit to a control processor unit;

processing the information signal with the control processor unit to produce a media signal;

sending the media signal from the control processor unit to the media unit; and

writing the media signal to the transportable media element with the media unit so that the transportable media element contains media data corresponding to the media signal.

20. The method of off-loading content of Claim 19, further comprising:

receiving a wireless signal from a wireless network with a wireless communication unit;

translating the wireless signal with the wireless communication unit to produce an information signal; and

sending the information signal to the control processor unit.

21. A method of off-loading secure content for use with a terminal data loader device on a mobile platform, comprising:

connecting a transportable media element to a media unit;

receiving a wireline signal with a wireline communication unit connected to a network on a mobile platform;

translating the wireline signal with the wireline communication unit to produce an information signal;

sending the information signal from the wireline communication unit to a control processor unit;

processing the information signal with the control processor unit to produce an unencrypted media signal;

sending the unencrypted media signal from the control processor unit to a security processor unit;

encrypting the unencrypted media signal with the security processor unit to produce an encrypted media signal; and

writing the encrypted media signal to the transportable media element with the media unit so that the transportable media element contains encrypted media data corresponding to the encrypted media signal.